

Application No. 09/284,339
Amendment dated December 9, 2005
Reply to Office Action of August 11, 2005

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REMARKS

In view of the above amendment, applicant believes the pending application is in condition for allowance. Claims 203-232 and 234, 235 have been canceled to expedite the prosecution.

Claim 233 was rejected under 35 U.S.C. § 101 and 112 as being directed to non-statutory subject matter. The foregoing amendment to the claim clearly defines the subject matter as directed to a combination apparatus so that further rejection on these grounds is not anticipated.

Claims 233 and 236 were rejected under 35 USC §102 as anticipated by Hiroya.

As recited in new claim 233, the present invention recites the limitation that electronic value card information generated by a service providing system includes key data for use in a mutual authentication process executed between a mobile user terminal and an examination terminal.

The above-noted feature of the present invention has the advantage of preventing misuse of electronic value card information by unauthorized examination terminals and preventing masquerade as owner of electronic value cards by a third party who does not hold the electronic value card information.

The present invention is designed to execute a mutual authentication between a mobile user terminal and an examination terminal using key data included in electronic value card information and the examination terminal is authenticated through this mutual authentication, so that there is no chance that unauthorized examination terminals make misuse of the electronic value card information.

Apart from the above-noted features and advantages of the present invention, the Examiner takes the position that Hiroya (EP0713198) col.9, lines 4-22, disclose the above-noted feature of the present invention. The Examiner also maintains that Hiroya, col.9, lines 9-22, discloses an electronic ticket including ticket information that is formed

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with a ticket name, publication source, date, transaction sequence number, and electronic signature.

However, Hiroya, col.9, lines 13-16, states that an electronic signature is data in which the whole or a part of ticket information is encrypted by using the secret key of an asymmetric encryption algorithm which is allocated to each ticket publisher beforehand. Paraphrasing this, with Hiroya's invention, a secret key is inside a ticket publisher and is not included in an electronic ticket.

Hiroya furthermore discloses an alternative idea of encrypting ticket information with a secret key. In this case, again, the secret key is still in the ticket publisher and is not included in the electronic ticket.

Furthermore, Hiroya, col.12, lines 32-38, discloses that a gate device retains a public key corresponding to a secret key that is used to generate an electronic ticket. This disclosure does not disclose the inclusion of the secret key in the electronic ticket.

Hiroya's secret key is equivalent to the key data of the present invention. In other words, Hiroya does not disclose or suggest the above-noted feature of the present invention, namely including key data for use in a mutual authentication process executed between the mobile user terminal and the examination terminal in electronic value card information.

Thus, with Hiroya's apparatus, a secret key is not included in an electronic ticket, and so there is no information in electronic ticket storage device 2 and terminal device 3 that can be used to authenticate the validity of a gate device. That is, with Hiroya's system, gate device authentication is not possible.

With the present invention, a mutual authentication process can be executed between a mobile user terminal and an examination terminal using a challenge-and-response scheme whereby the key data included in the electronic value card information is used as secret information. By this means, even if data communicated between a mobile user terminal and an examination terminal is eavesdropped by a third party, those data varies

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according to the challenge information from the examination terminal and the third party cannot masquerade as owner of the electronic value cards.

With Hiroya's invention, on the other hand, a gate device examines ticket information and an electric signature provided in the ticket information, and thereby examines the validity of the electronic ticket. Still, Hiroya's ticket information and electronic signature are fixed information, and, consequently, a third party may eavesdrop electronic ticket data communicated between electronic ticket storage device 2 and a gate device to masquerade as owner of the electronic ticket.

None of the features of the preset invention discussed above is disclosed or suggested in Hiroya, and the present invention achieves distinct advantages over Hiroya.

In view of the herein-contained remarks, it is respectfully submitted that the claimed invention is neither anticipated nor obvious as compared to the applied prior art. In view of the above, consideration and allowance are, therefore, respectfully solicited.

In the event the Examiner believes an interview might serve to advance the prosecution of this application in any way, the undersigned attorney is available at the telephone number noted below.

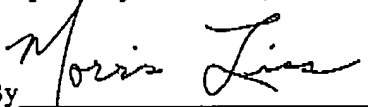
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The Director is hereby authorized to charge any fees, or credit any overpayment, associated with this communication, including any extension fees, to CBLH Deposit Account No. 22-0185, under Order No. 22223-00001-US from which the undersigned is authorized to draw.

Dated: December 12, 2005

Respectfully submitted,



By
Morris Liss

Registration No.: 24,510
CONNOLLY BOVE LODGE & HUTZ LLP
1990 M Street, N.W., Suite 800
Washington, DC 20036-3425
(202) 331-7111
(202) 293-6229 (Fax)
Attorney for Applicant